

breast), francolin, sand-grouse, snipe, and lesser bustard. Other birds are comparatively scarce.

Throughout the trip, which extended over twenty-eight days, I enjoyed the companionship of Mr. Lindblom, to whom I am indebted for one of the photographs here reproduced. Attached also is a sketch map, on much reduced scale, of the route taken and the course of the river.

EARLY MAN IN BRITISH EAST AFRICA

BY C. W. HOBLEY.

One would expect to find relics of prehistoric man in Africa, perhaps more than anywhere on the globe, because it is the general opinion of geologists that the heart of the Continent has been continuously above the sea for a very long period, geologically speaking.

This hope has not been altogether disappointed, for stone weapons and implements have been discovered in different parts of the Continent, widely apart. The two areas in which most finds have been made are South Africa and the Nile Valley.

Artificial stone implements from Africa were probably first noticed in Egypt, being first accidentally found in the course of excavations for Egyptian antiquities, and owing to the extraordinary preservative qualities of the desert sand many bones, and other more or less perishable things, have come to light. In South Africa the first recorded implements were discovered about 1866, and since then many thousands have been picked up from Cape Colony to Rhodesia; other evidences of culture, such as pottery, have been found, but they are rare. A few human remains have been found, but not to any great extent. Stone implements have also been recorded from Somaliland, Darfur, the Congo, and other places. In Europe and other parts of the world we owe a great deal to the wide occurrence of limestone deposits in preserving relics of early man, for two reasons. Limestone rocks easily weather into caves or large cavities, formed in it by the solvent action of

rain water charged with carbonic acid gas. Early man inhabited these caves and often died there. In course of time layers of stalagmite were deposited over his remains, his implements, and the bones of the animals he ate, and we often have preserved for us a fairly complete record of his life.

Taking Africa as a whole, limestone is rare and the convenient limestone cave does not often exist, and therefore the chances of the preservation of natural museums are remote.

The central portion of Africa was probably much thinner populated in early times than South Africa, for where thousands of implements have been found there, only dozens have been found here. Of course, South Africa has been occupied by Europeans much longer than East Africa, and much more development has been done, excavation and such like; but for all that, one would think that more should have been found. It is, however, too early to come to definite conclusions on this point.

Possibly the intense volcanic action which took place in the heart of British East Africa, and which continued up to a very recent geological period, so terrified early man that he rather avoided the area and preferred countries less liable to violent eruptions and their attendant discomforts, or again it may be possible that the more savage fauna were too numerous for him to cope with: little, however, is to be gained by mere theorising. The first stone implements in British East Africa were discovered by Professor J. W. Gregory in 1892 at Gilgil, and were described by him in his delightful work 'The Great Rift Valley' (Murray).

The writer found a well-worked obsidian arrow-head some years ago a few miles north of Kisumu, many miles from any obsidian *in situ*; another one of white chalcedony was obtained from among the magic stones of a Kikuyu medicine-man, and it was said to have come from the Tana Valley.

Dr. F. Oswald reports having found a number of rude scrapers near Karungu, close to the shore of Lake Victoria. One of those curious perforated stones, known in South Africa as Kwe, was found a few years ago at Mwatate by Mr. Skene.

A similar one, but broken in half, was found on a Fibre Estate at Voi.

A rude stone bowl (or mortar) was dug up a few miles south of Naivasha Station.

This and the Kwe from Mwatate were figured in the writer's book on the 'A-Kamba,' p. 160.

Recently, beautifully worked arrow-heads were discovered in Kyambu district, on Kinangop Plateau and at Njoro, by Messrs. Montagu, Chesnaye, and Tunstall.

Njoro appears to be a very promising place, for Mr. W. Tunstall has sent in a small collection of worked obsidian stones, all of which he found in the vicinity. Two very perfectly rounded quartz spheres have been found, one on the top of a kopje in the Tsavo Valley and one in a cutting on the Magadi Railway. These were probably originally reduced, roughly, to their present shape by water action in pot-holes, but were picked up by early man and used as mullers for grinding and crushing roots, &c., and thus gradually assumed a more perfectly spherical shape. The specimen from Magadi was found some distance below the surface in a recent volcanic area, and there are no pot-holes within many miles. It is said that similar round stones are used to this day by the Masai to polish their new spears, and also to sharpen or put a gritty edge on the stones on which native meal is ground.

As far as is known no early pottery has yet come to light, no bone tools, and no cave drawings. More unfortunate still, no early skulls have yet been found; but as before explained unless there is lime about, human bones very soon disintegrate and disappear. No ancient middens or rubbish heaps have yet been discovered.

The materials used for the implements discovered up to date are usually obsidian, but the scrapers found by Dr. Oswald were made of basalt. As above mentioned, one arrow-head of chalcedony or agate has been recorded. The perforated stone Kwes and the Naivasha mortar were of basalt and phonolite respectively.

The collections found in British East Africa are not yet large enough, and collateral evidence is too scanty, to enable any real attempt to be made at systematic classification, as

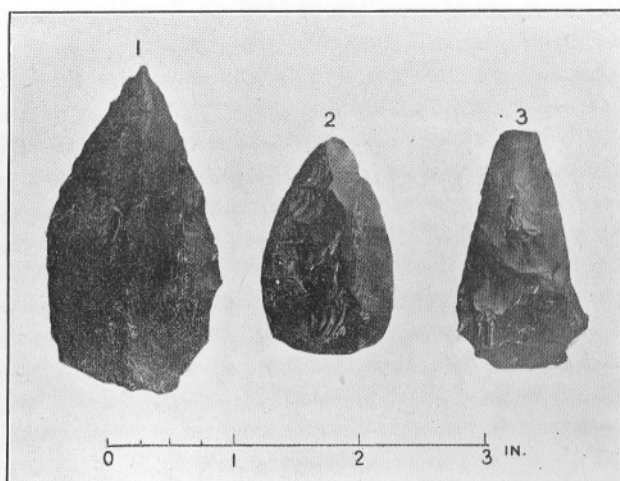


FIG. I. STONE IMPLEMENTS (OBSIDIAN) FROM B.E.A.

1. *From Kinsbop (Chesnaye).*
2. *From Kyambu (Montagu).*
3. *From Njoro (Tunstall).*

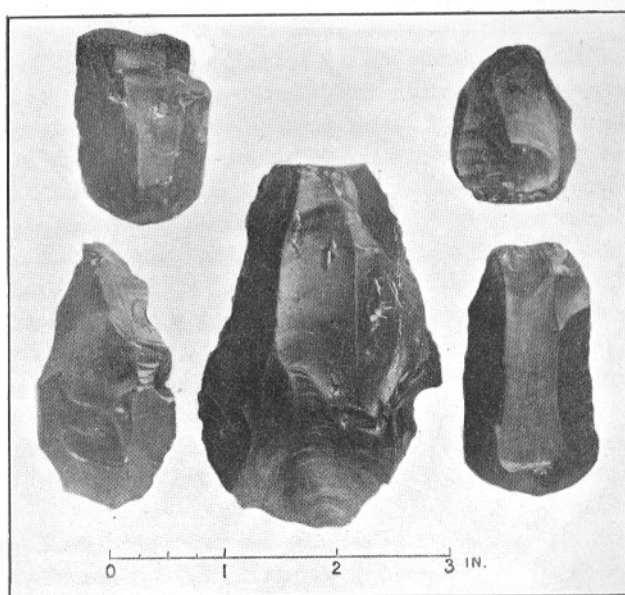


FIG. II. STONE IMPLEMENTS (OBSIDIAN) FROM B.E.A.

All from Njoro (Tunstall)

has been done in Europe, and, to some extent, in South Africa.

In Europe the works of Stone Age man have been divided into some seven periods, commencing with the Chellean as the oldest and ending with the Azilian. Anthropologists have, however, only been able to do this on the grounds of differences in the associated faunal remains, which differences were partly due to changes of climate and partly due to the natural progress of development. In South Africa up to now the experts have not been able to correlate these European divisions with the various deposits found in that area, although they have found the remains of Mastodon, extinct form of bubaline antelope or hartebeest; *Bubalus baini*, an extinct buffalo whose horns are much larger than anything now in existence, e.g. fourteen feet on the curve; an extinct horse called *Equus capensis*, and traces of hyæna.

In East Africa the only animal remains found in association with stone implements were found in the Morendat Valley, near Naivasha, and consisted of a fragment of the jaw of an extinct horse named *Equus hollisi*, by Professor Ridgeway ('Proceedings Zoological Society,' October 1909); it was found in beds of volcanic ash deposited in late Tertiary times under the waters of Naivasha Lake, which during that period covered a much greater extent than at present.

Any attempt to correlate the periods of a Stone Age in Africa with those of Europe is undesirable, for to do so one would have to work on false premises. As one well-known authority says: 'There never can be universal contemporaneity of an industry, and any attempt to make similar "cultures" of the same age over widely separated areas will receive but little support from facts in the field.'

Taking the Stone Age in Africa generally, there is little doubt that it continued on into fairly recent times and lived side by side with the use of iron. Many good authorities maintain that the art of working in iron had its birthplace in Africa, and if we accept this belief we can legitimately argue that when it appeared, or where it early obtained a firm root, it conflicted with the development of the stone-working industry, crushed it out of existence, and thus prevented its ever reaching its

higher stages such as are represented by the beautiful polished celts, &c., of later Neolithic times in Europe.

It must also be remembered that in Europe a Bronze Age intervened between the last stone implement period and the coming of iron. There is no record of such a period in Africa, but it is believed that the natives of the South Congo worked the great copper deposits of the Katanga region longer than we are apt to think. Another factor which had a profound influence in Europe was the occurrence of the Ice Age, which could not have appreciably affected the human inhabitants of Central Africa.

The South African implements have been divided by Dr. Peringuey into three groups which may be termed :

Type 1.—Palæolithic.

Type 2.—South African Neolithic.

Type 3.—Later Neolithic—which corresponds to what has generally become known as the true Neolithic in Europe.

Type 1 will probably be found in East Africa and Uganda, and possibly the basalt scrapers recently discovered by Dr. Oswald near Karungu will be found to belong to this period.

The majority of the implements discovered in East Africa, however, appear to belong to Type 2, and consist of arrow-heads and scrapers. It is curious that no *bouchers* or primitive stone axes have been found, as they are well known in South Africa ; but they will doubtless turn up as more people turn attention to the quest for these relics.

With regard to Type 3, it is represented in Europe by beautifully worked arrow-heads, with tangs and stone axes, or celts ground or rubbed down until a smoothly worked edge was obtained, and also sometimes perforated for the handle.

The only articles found in British East Africa which conform to this type are the two perforated stones called Kwe in South Africa, and which have been previously mentioned, and the stone bowl (or mortar) found at Naivasha. Certain old steatite pipe bowls still occasionally seen, the possession of chiefs in Kavirondo, may be survivals of this class of industry ;

also the stone weights still worn in the ears of the Masai, the stone-headed clubs used by the tribes on the south and east of Kenya, stone anvils and the primitive grinding-stones still used everywhere for making meal from maize or millet. It is quite natural to find that the use of these implements has survived up to the present day in the remoter parts of the country. In the caves and middens of South Africa many flat beads have been found, made of fragments of the shell of an ostrich egg, bored and rubbed down to a roughly circular shape. As far as is known no such ornaments have been found in East Africa in association with stone implements, but among the Turkana these beads are found in use at the present day, and this may be quoted as rather an interesting example of the survival of a prehistoric industry.

The perforated stones, previously referred to, deserve some notice; they are very well known in South Africa, and are there called Kwe or Tikoe.

Their range is enormous, for they are of common occurrence in Cape Colony, Orange River Colony, but rarely found in the Transvaal; some 800 of them have been found in South Africa. They are recorded from the Tanganyika Plateau, from Kilimanjaro, and also from near Khartum and from South Kordofan. As previously mentioned, two have been found in this country and, doubtless, more will be discovered. Similar implements are found in Europe, and they have even been recorded from Chili.

In Europe they are associated with polished stone axes, and are of true and rather late Neolithic type. They are usually five or six inches in diameter with a perforation about one inch to one and a quarter inches in diameter.

It has been proved in South Africa from the evidence of early travellers and bushman drawings that they were used both as weights for digging-sticks, and were fastened on sticks and used for clubs. It is probable that the stone-headed clubs, still used by some of the tribes around Mount Kenya, are survivals of the Kwe.

Most of the obsidian arrow-heads and scrapers which have been discovered are evidently made from natural splinters or flakes of the rock, because numerous natural flakes are found

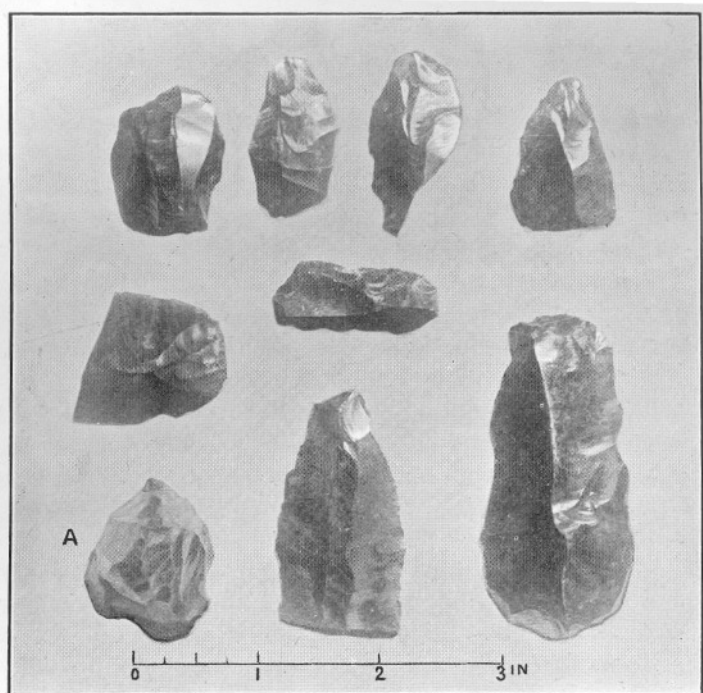


FIG. III. STONE IMPLEMENTS (OBSIDIAN) FROM B.E.A.
All from near Kikuyu Sta.
The stone marked A is a core from which flakes have been struck.

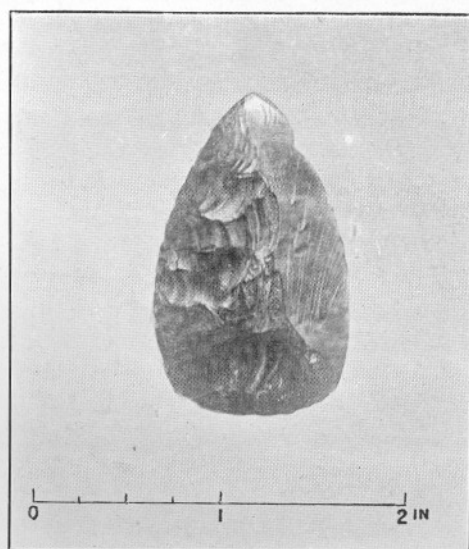
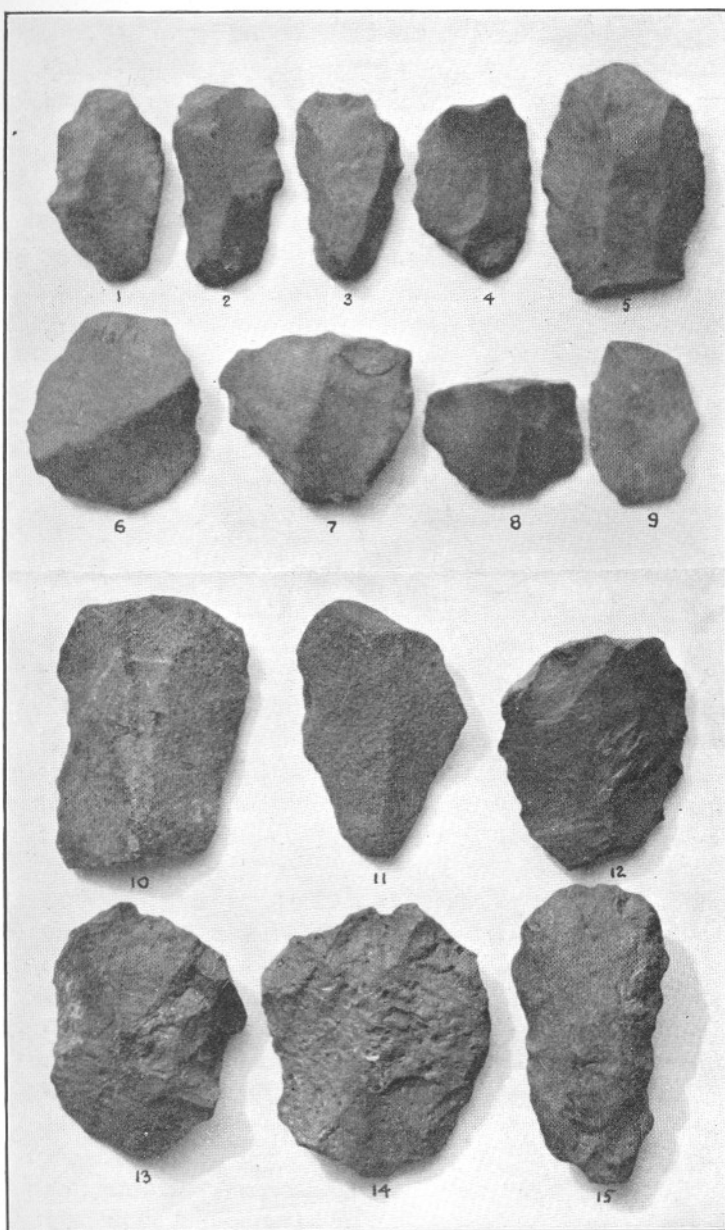


FIG. IV. STONE ARROWHEAD (OBSIDIAN).
 Found near Kyambu by Mr. Montagu.
Enlarged view of No. 2 of Fig. I.

in the Rift Valley and other places alongside worked pieces ; but a core from which flakes have been artificially removed has been recently discovered. The implements are usually worked on one side only, and are classed as *monohedral* ; occasionally one finds one which is *holohedral*, or worked on all sides. These were almost certainly contemporaneous, but fashioned by workers who were specially adroit at the industry. The better specimens are usually found singly, and are probably the heads of arrows lost in the chase. If a quantity of worked stones are found in association, they are probably a collection of the wasters or failures ; no stone arrow-head with a tang has yet come to light.

The Kikuyu people have a legend of a former race called the Gumba, of pigmy stature, and they say that the sites of their old villages can be traced ; two localities are mentioned, one near Kikuyu Station and the other in Kenya Province, near the Tana Valley, and it is said that fragments of their pottery are sometimes found when cultivation is going on. Now near Kikuyu Station numerous worked flakes are to be found ; no pottery has yet come to hand, but it is possible that the Gumba legend is a traditional record of the existence of the Stone Age men.

In Kavirondo, and a few other places, certain jasper beads have been found, and one might jump to the conclusion that these were relics of the Stone Age. So they are, in the sense that all stone beads are examples of early industries ; but the beads in question have, it is believed, wandered down from ancient Egypt and were made by skilled workmen of a comparatively high plane of culture, for it is inconceivable that a Stone Age savage, who had only discovered how to chip rude obsidian implements, could accurately bore a truly circular hole of small diameter through an extremely hard material such as jasper. There is another very interesting point about these beads, and that is that they were made from pebbles, and besides being bored are frequently roughly ground or rubbed down into either six-sided prisms or a double six-sided pyramid, and this is believed to be mimetic of a common natural crystalline form, the six-sided quartz prism or pyramid.



STONE IMPLEMENTS FOUND BY DR. FELIX OSWALD.

It is unfortunate that the evidence is as yet so scanty, but this sketch may perhaps induce residents to look out for, and collect relics of, the handicraft of early man. It is hoped that some of the many caves in the country will be systematically explored. In the event of a discovery, great care should be taken to collect the bones of any mammals found in caves in association with stone implements, as by this means we may be able to reconstruct the early history of man in this part of the African Continent and correlate his progress with that of his congeners living at that time in the Northern Hemisphere and in South Africa, to the record of which such careful study has been devoted by many brilliant students in Europe.

A great deal of valuable information on the South African Stone Age will be found in a paper by Dr. Peringuey, Director, South African Museum, in Vol. VIII. of the *Annals of the South African Museum*, published 1911.

DESCRIPTION OF PLATE

The stone implements figured in the plate (two-thirds of the actual size) were found by me on the surface of the Lower Miocene deposits which are exposed in the terraced gullies of Nira and Kachuku, about five miles south-east of Karungu, on the east coast of the Victoria Nyanza. They are arranged on the plate in the same relative position, the apex pointing downward in each case; the photograph shows the flaked side of the implements, the reverse displaying the bulb of percussion. In Nos. 5, 9 and 10 the tip is broken off, but the fracture is very old, for the brown patina extends equally across it.

The greater number, viz. Nos. 1 to 9 and 12, consist of a black flint with brown patina, Nos. 10 and 11 are of sandstone, No 13 is of quartzite with veins of quartz, No. 14 is of quartz-porphry, and No. 15 is of quartzite with crimson stains of hematite. The flint-implements must have been brought from a considerable distance, perhaps from the southward, for I did not find any similar rock or pebbles during my march eastwards to Kisii and thence to Homa Bay and Kendu.

28 THE GAME OF THE NORTH KAVIRONDO

The quartzite of Nos. 13 and 15 doubtless comes from the quartzite of the Kisii Highlands, probably from pebbles brought down by the Kuja river. In No. 15 this is certainly the case, for the reverse side shows the natural rounded surface of the pebble with only secondary chipping round the edge.

No. 14 is a quartz-porphyry, rather similar to the quartz-porphyry of Najanja at the south-east angle of Homa Bay.

Nos. 11 and 12 were found at Nira ; all the remainder come from Kachuku.

FELIX OSWALD, D.Sc., F.G.S.

THE GAME OF THE NORTH KAVIRONDO DISTRICT, NYANZA PROVINCE

By C. W. WOODHOUSE

The North Kavirondo district is not noted for the abundance of game it contains, but many interesting mammals inhabit it.

The boundaries of the district are, roughly, the Yala River to the Lake ; the Lake shore to the mouth of the Sio River ; thence for about twenty miles up the Sio River, and from there to the Malaba River which it follows to Elgon ; about half of Elgon ; and the Nandi Escarpment down to the Yala River.

This large area differs considerably in the character of the country, and from a zoological point of view may be conveniently divided into three divisions.

Division 1.—The greater portion of the district consists of rolling grass-clad downs, with scattered bushes and small trees. Here and there are outcrops of rock and occasional copses, or woods of thorn bush and timber trees.

Nearly every valley is swampy during the rains. The grass, which mainly consists of spear-grass and red top, grows to a length of about five feet. This land is fairly thickly populated and does not hold much game, an occasional duiker or reedbuck (Ward's *Bohor*) being seen. Game birds are